

MECHANICAL GENERAL NOTES

1. CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE PROJECT SCOPE, UTILITY CONNECTIONS, AND ALL BUILDING SERVICES.

2. STANDARD DETAILS ILLUSTRATED ON THE DRAWINGS SHALL BE APPLIED IN ALL CASES WHERE THE FEATURE OCCURS IN THE SYSTEM DESIGN.

3. ALL DUCTWORK SIZES SHOWN ARE CLEAR INSIDE DIMENSIONS IN INCHES. REFER TO SPECIFICATION SECTION 230711 FOR INSULATION REQUIREMENTS.

4. MAJOR EQUIPMENT SHOWN ON THE PLANS AND ELEVATIONS ILLUSTRATE THE GENERAL ARRANGEMENT AND SPACE ALLOCATIONS. THE CONTRACTOR SHALL VERIFY THE SPACE REQUIREMENTS FOR EACH SYSTEM COMPONENT USING MANUFACTURER CERTIFIED SHOP DRAWINGS AND MAKE THE NECESSARY ADJUSTMENTS IN EQUIPMENT PLACEMENT AND CONNECTION IN ORDER TO ACCOMMODATE THE EXACT EQUIPMENT TO BE INSTALLED.

5. SUPPORTS, ANCHOR BOLTS, AND HANGERS FOR ALL EQUIPMENT SPECIFIED IN DIVISION 23 SHALL CONFORM TO THE SPECIFICATIONS. MISCELLANEOUS STEEL BRACING SUPPORTS AND REINFORCING STEEL NEEDED TO SUPPORT EQUIPMENT SPECIFIED IN DIVISION 23 SHALL BE FURNISHED AS PART OF SCOPE OF WORK OF DIVISION 23.

6. DIFFUSERS, REGISTERS, AND GRILLES SHOWN ON THE MECHANICAL DRAWINGS SHALL BE IN ACCORDANCE WITH THE DIFFUSER AND GRILLE SCHEDULE. BRANCH DUCTS TO AIR DEVICES SHALL BE IN ACCORDANCE WITH THE SCHEDULE UNLESS NOTED OTHERWISE.

7. CEILING DIFFUSER LOCATIONS SHALL BE AS SHOWN ON THE ARCHITECTURAL REFLECTED CEILING PLANS.

8. PIPING CONNECTIONS TO AIR HANDLING UNIT COILS AND MAJOR EQUIPMENT SHALL BE FABRICATED WITH ISOLATION VALVES, FLANGES, AND/OR UNIONS POSITIONED TO ALLOW REMOVAL AND SERVICE OF THE COMPONENT PARTS.

9. CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT PRIOR TO CUTTING ANY OPENING IN THE STRUCTURE.

10. DRAWINGS ARE SCHEMATIC IN NATURE AND SHALL NOT BE SCALED. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING EXACT ROUTING OF ALL SERVICES WITH EXISTING CONDITIONS AND WITH ALL OTHER TRADES. REFER TO SPECIFICATIONS FOR SERVICE PRIORITY.

11. COORDINATE ANY DEVICE REQUIRING AN ACCESS PANEL WITH THE ARCHITECT.

12. WHERE WORK IN RENOVATED AREAS AFFECTS SYSTEMS IN OTHER AREAS OF THE HOSPITAL, THE CONTRACTOR SHALL COORDINATE THIS WORK WITH THE OWNER. THIS WORK SHALL BE DONE TO FIT HOSPITAL OPERATIONAL SCHEDULE AND MINIMIZE DISRUPTION/DISCOMFORT TO OCCUPIED AREAS. PROVIDE 48 HOURS WRITTEN NOTICE WITH ANTICIPATED DURATION OF OUTAGE.

13. ALL PENETRATIONS THROUGH RATED WALLS, FLOORS AND PARTITIONS MUST BE INSTALLED AND FIRESAFED TO MEET UL FIRE RESISTANCE LISTING DETAILS FOR THE PENETRATION.

14. COORDINATE WITH ALL TRADES FOR REQUIRED CEILING REMOVAL IN EXISTING BUILDING. NOTIFY THE ARCHITECT AND OWNER PRIOR TO COMMENCING REMOVAL. REMOVE ONLY THAT PORTION OF CEILING NECESSARY TO ACCESS AND COMPLETE THE NEW WORK. UPON COMPLETION OF THE ABOVE CEILING WORK, CEILING IS TO BE REINSTALLED. REPLACE ANY DAMAGED CEILING TILES WITH NEW TILES TO MATCH EXISTING.

DUCTWORK PRESSURE CLASS

SYSTEM	PRESSURE CLASS
MEDIUM PRESSURE SUPPLY	4" W.G.
LOW PRESSURE SUPPLY	1" W.G.
LOW PRESSURE RETURN	2" W.G.
LOW PRESSURE EXHAUST	2" W.G.

*DUCT LEAKAGE TESTING SHALL CONFORM TO SPECIFICATION SECTION 23 31 00.

MECHANICAL ROOM NOTES

1. SEAL ALL WALLS, ROOF, AND FLOOR PENETRATIONS AIR TIGHT WHERE PIPING, DUCTWORK, AND CONDUIT PENETRATE.

2. REFER TO MECHANICAL DETAILS FOR ADDITIONAL REQUIREMENTS ON EQUIPMENT.

3. REFER TO ELECTRICAL AND PLUMBING DRAWING FOR COORDINATING ALL INSTALLED MATERIALS.

4. EQUIPMENT SIZES AND SERVICE SPACE REQUIREMENTS MAY VARY BETWEEN DIFFERENT MANUFACTURERS. CONSULT MANUFACTURER AS SUBMITTED AND APPROVED FOR APPLICATION WITH MECHANICAL ROOM EQUIPMENT.

5. SLEEVE PIPE PENETRATIONS AT WALLS AND FLOORS.

6. DO NOT BLOCK TUBE PULL OR SERVICE SPACE ON EQUIPMENT WITH PIPING, DUCTWORK, ETC. FLANGED OR REMOVABLE SECTIONS MAY BE USED IN SOME INSTANCES WHERE TIGHT CLEARANCES EXISTS.

7. REFER TO EQUIPMENT SCHEDULES FOR BRANCH PIPE SIZES TO INDIVIDUAL EQUIPMENT.

8. ALL CAPPED LINES FROM EQUIPMENT SHALL BE IDENTIFIED WITH STENCILED SERVICE TYPE WITHIN 3'-0" OF CAP.

9. PIPE INSULATION TYPE AND THICKNESS SHALL BE AS DESCRIBED IN SPECIFICATIONS.

MECHANICAL DEMOLITION NOTES

1. CONTRACTOR SHALL TAKE AIR FLOW READINGS ON EF-5 AND AC-3 PRIOR TO DEMOLITION. AC-3 READINGS SHALL INCLUDE SUPPLY, RETURN, AND OUTSIDE AIR CFM AND ASSOCIATED VFD SPEED, CHS/R TEMPERATURE, AND THE MIXED AIR AND LEAVING AIR DRY BULB AND WET BULB TEMPERATURES. RECORD AND SUBMIT TO ARCHITECT/ENGINEER.

2. CONTRACTOR SHALL TAKE AIR READINGS OF ALL GRILLES, REGISTERS, AND DIFFUSERS IN PROJECT AREAS PRIOR TO DEMOLITION. RECORD AND SUBMIT TO ARCHITECT/ENGINEER.

3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE CONDITION OF ALL EXISTING EQUIPMENT, EXACT SIZES OF EXISTING DUCT AND PIPING, ETC. BEFORE DEMOLITION WORK IS BEGUN. REPORT ANY DISCREPANCIES BETWEEN PLANS AND ACTUAL FIELD CONDITIONS TO ARCHITECT AND ENGINEER PRIOR TO THE COMMENCEMENT OF DEMOLITION WORK.

4. REMOVE THE INDICATED HVAC ITEMS AS SHOWN ON PLANS. THIS INCLUDES ALL HANGERS, STRAPS AND RELATED MATERIAL. AS DIRECTED FROM THE OWNER THIS MATERIAL SHALL BE REMOVED FROM THE SITE OR TURNED OVER TO THE OWNER.

5. CAP AND SEAL AIR TIGHT ALL POINTS AT WHICH DUCTWORK IS REMOVED FROM DUCTWORK THAT WILL REMAIN. RE-INSULATE REMAINING DUCTWORK TO MAINTAIN VAPOR BARRIER.

6. PATCH OPENINGS IN WALLS TO MAINTAIN THE INTEGRITY OF THE WALL WHERE AIR DEVICES HAVE BEEN REMOVED.

7. CONTRACTOR SHALL VERIFY CLEARANCE REQUIREMENTS AND INDICATE ROUTING OF NEW DUCTWORK BEFORE FABRICATION BEGINS AS RISES AND DROPS MAY BE NECESSARY DUE TO EXISTING FIELD CONDITIONS.

MECHANICAL LEGEND

(NOT ALL SYMBOLS MAY BE USED)

DUCTWORK			
12"X12" FACE	24"X24" FACE		
		SUPPLY DIFFUSER AND AIR QUANTITY. SHADED AREA INDICATES NO THROW IN THIS DIRECTION.	FIRE DAMPER
		RETURN GRILLE AND AIR QUANTITY.	SMOKE DAMPER
		EXHAUST GRILLE AND AIR QUANTITY.	FIRE/SMOKE DAMPER
		LAMINAR FLOW SUPPLY DIFFUSER AND AIR QUANTITY.	SUPPLY DUCT - UP
		LINEAR DIFFUSER AND AIR QUANTITY.	RETURN OR EXHAUST DUCT - UP
		THERMOSTAT OR TEMPERATURE SENSOR	SUPPLY DUCT - DOWN
		HUMIDISTAT OR HUMIDITY SENSOR	RETURN OR EXHAUST DUCT - DOWN
		SMOKE DETECTOR	HUMIDIFIER WITH IDENTIFICATION
		REHEAT BOX WITH IDENT. & CFM	MANUAL VOLUME DAMPER
		REHEAT COIL WITH IDENT.	MOTORIZED DAMPER
		ACCESS DOOR	TRANSITION
		3/4" UNDERCUT AT DOOR	RADIUS ELBOW
		ACCESS DOOR	SQUARE THROAT ELBOW WITH TURNING VANES
		ABOVE FINISHED FLOOR	BRANCH DUCT CONNECTION RECTANGULAR OR ROUND BRANCH. RECTANGULAR TRUNK. MVD REQUIRED TO 2 OR MORE AIR DEVICES.
		AUTOMATIC TEMPERATURE CONTROL PANEL	RISE/DROP IN ELEVATION
		BACKDRAFT DAMPER	SPLITTER WITH SPLIT SIZES SHOWN
		BOTTOM OF DUCT	SPLITTER WITH SPLIT SIZES SHOWN
		BOTTOM OF PIPE	BRANCH DUCT CONNECTION CONICAL TEE. ROUND TRUNK.
		CIRCUIT BREAKER	BRANCH DUCT CONNECTION STRAIGHT TEE. ROUND TRUNK. MVD REQUIRED TO 2 OR MORE AIR DEVICES.
		CONTROL CIRCUIT TRANSFORMER	
		DIRECT DIGITAL CONTROL	
		EXHAUST	
		MARINE LIGHT	
		MANUAL VOLUME DAMPER	
		OUTSIDE AIR	
		OPPOSED BLADE DAMPER	
		RETURN AIR	
		SUPPLY AIR	
		SIDEWALL REGISTER	
		UNLESS NOTED OTHERWISE	
		VARIABLE FREQUENCY DRIVE	

MECHANICAL LEGEND

(NOT ALL SYMBOLS MAY BE USED)

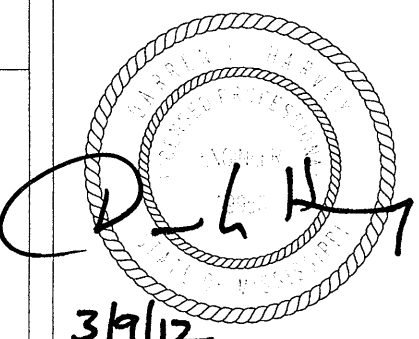
PIPING

	CHILLED WATER SUPPLY		GATE VALVE
	CHILLED WATER RETURN		GLOBE VALVE
	HOT WATER SUPPLY		BALL VALVE
	HOT WATER RETURN		BUTTERFLY VALVE
	CONDENSER WATER SUPPLY		CONTROL VALVE, 2 WAY
	CONDENSER WATER RETURN		CONTROL VALVE, 3 WAY
	HIGH PRESSURE STEAM		CHECK VALVE
	MEDIUM PRESSURE STEAM		STRAINER
	LOW PRESSURE STEAM		STRAINER & BLOWDOWN VALVE
	HIGH PRESSURE CONDENSATE		PLUG COCK/BALANCING VALVE
	MEDIUM PRESSURE CONDENSATE		CIRCUIT SETTER
	LOW PRESSURE CONDENSATE		PRESSURE REDUCING VALVE
	PUMPED CONDENSATE RETURN		COMPANION FLANGE
	FUEL OIL SUPPLY		UNION
	FUEL OIL RETURN		GUIDE
	DRAIN LINE		ANCHOR
	DIRECTION OF FLOW		FLEXIBLE CONNECTOR
	REDUCER		THERMOMETER WELL
	SLOPE PIPE IN THIS DIRECTION		PETE'S PLUG
	RISE/DROP IN PIPE ELEVATION		VALVE WITH BLIND FLANGE
	ELBOW UP		PIPE CAP
	ELBOW DOWN		STEAM TRAP
	BRANCH PIPE CONNECTION		GAUGE & GAUGE COCK
	TEE - OUTLET DOWN		THERMOMETER
	TEE - OUTLET UP		
	END OF MAIN DRIP		
	PRESSURE REDUCING VALVE		

Revision	Date

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Drawing Title

Mechanical Legends, Index and Notes

Approved:

Project Title

RENOVATE 3K FOR MENTAL HEALTH O/P CLINICS

Location

G.V. (SONNY) MONTGOMERY VA MEDICAL CENTER

Date

03/09/2012

100% SUBMISSION

Project Number

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Building Number

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Drawing Number

MH-01

G.V. (SONNY) MONTGOMERY VA MEDICAL CENTER

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